

## CLAIMS

1. A drug for medical use characterized by containing a compound which carries in its chemical structure at least one member selected from the group consisting of  $-^{17}\text{OH}$ ,  $-^{14}\text{NH}$  and  $-^{33}\text{SH}$ , wherein the above  $^{17}\text{O}$ ,  $^{14}\text{N}$  or  $^{33}\text{S}$  exerts a relaxation effect on the proton bonded thereto and the relaxation effect is spreaded through the exchange of a proton in a vital component of a target organ or tissue of a living body with the above-mentioned proton, thus enabling detection by nuclear magnetic resonance.
2. The drug for medical use according to claim 1 wherein the vital component of a target organ or tissue in a living body is water, lactic acid or N-acetylaspartic acid.
3. The drug for medical use according to claim 1 or 2 wherein the drug is selected from the group consisting of therapeutic agents, nutritional or tonic agents, agents for blood and humor, and agents for diagnosis.
4. The drug for medical use according to claim 3 wherein the agent for blood and humor is infusion.
5. The drug for medical use according to claim 3 wherein the agent for diagnosis is an X-ray contrast medium, MRI contrast medium, ultrasonic contrast medium or radiopharmaceutical.
6. The drug for medical use according to any one of the claims 1-5 wherein the compound carrying in its

chemical structure at least one member selected from the group consisting of  $-^{17}\text{OH}$ ,  $-^{14}\text{NH}$  and  $-^{33}\text{SH}$  is an active ingredient, additive or solvent of the drug for medical use.

5 7. The drug for medical use according to claim 6 wherein the active ingredient of the drug is a sugar.

8. The drug for medical use according to claim 7 wherein the sugar of the active ingredient of the drug is glucose.

10 9. The drug for medical use according to claim 6 wherein the active ingredient of the drug is an amino acid.

10. The drug for medical use according to claim 6 wherein the solvent is an aqueous solvent.

15 11. The drug for medical use according to any one of the claims 1-10 wherein the solvent is water.

12. The drug for medical use according to any one of the claims 1-12 wherein the drug has been processed with a material for a drug delivery system.

20 13. The drug for medical use according to claim 12 wherein the material for a drug delivery system is a liposome.

14. The drug for medical use according to any one of the claims 1-13 which is a compound carrying in its  
25 chemical structure at least one member selected from the group consisting of  $-^{17}\text{OH}$ ,  $-^{14}\text{NH}$  and  $-^{33}\text{SH}$  and which enables the determination by means of nuclear magnetic resonance imaging, nuclear magnetic resonance

spectrometry or relaxation time measurement of a phenomenon wherein the above  $^{17}\text{O}$ ,  $^{14}\text{N}$  or  $^{33}\text{S}$  exerts a relaxation effect on the proton bonded thereto and then the relaxation effect is spreaded through the exchange of a proton in a vital component of a target organ or tissue in a living body with the above-mentioned proton.

add  $a'$

[illegible]